

REMARKS

In response to the Office Action mailed February 18, 2010, Applicants respectfully request reconsideration. Claims 1-8 were previously pending in this application. Claims 1 and 5-7 have been amended herein. As a result, claims 1-8 remain pending for examination with claim 1 being the sole independent claim. No new matter has been added.

Rejections Under 35 U.S.C. §102

The Office Action rejected claims 1 and 4 (including independent claim 1) under 35 U.S.C. §102 as purportedly being anticipated by Anand, U.S. Patent Publication No. 2001/0013657 ("Anand"). Applicants respectfully request reconsideration.

Anand describes a technique for forming a bonding pad using chemical mechanical polishing (CMP) (¶26). The CMP technique causes the central portion of bonding pad 21 to be excessively etched, resulting in dishing of the bonding pad (¶26, FIG. 4). Anand states that the dishing of the bonding pad is undesirable as it can prevent a wire from being properly bonded to the bonding pad, resulting in a decrease in production yield (¶26).

By contrast, claim 1, as amended, recites that the first thickness of the metal contact pad, at least for a first portion of the metal contact pad that is not covered by the passivation layer, is smaller than the second thickness of said conductive strips prior to application of an external contact to the metal contact pad, wherein the top of metal contact pad has a substantially flat surface extending substantially throughout the entire opening.

Anand does not teach or suggest that the top of a metal contact pad has a substantially flat surface extending substantially throughout the entire opening. Rather, FIG. 4 of Anand shows that the center of the bonding pad has a dished or curved upper surface due to the CMP process. For at least this reason, claim 1 patentably distinguishes over Anand. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-8 depend from claim 1 and patentably distinguish over Anand for at least the same reasons.

Rejections Under 35 U.S.C. §103

The Office Action rejected claims 1, 3-4 and 6-8 (including independent claim 1) under 35 U.S.C. §103(a) as purportedly being unpatentable over Sakihama et al., U.S. Patent No.

6,522,021 ("Sakihama") in combination with Wu et al., U.S. Patent No. 6,287,950 ("Wu"). Applicants respectfully request reconsideration.

The Office Action relies upon Sakihama for showing a metal contact pad 200 to which is bonded a bonding wire 2. The Office Action concedes that Sakihama does not disclose a pad portion that has a smaller thickness than the thickness of the conductive strips. The Office Action relies upon FIG. 2E of Wu for showing the formation of cavities 215 in a bonding pad to provide higher adhesive strength. FIG. 2E of Wu shows that the formation of cavities 215 reduces the thickness of the bonding pad at the cavities. Even if the combination is proper (which Applicants do not concede), the claims as amended patentably distinguish over the combination.

Claim 1, as amended, recites that the first thickness of the metal contact pad, at least for a first portion of the metal contact pad that is not covered by the passivation layer, is smaller than the second thickness of said conductive strips prior to application of an external contact to the metal contact pad, wherein the top of metal contact pad has a substantially flat surface extending substantially throughout the entire opening.

The combination of Sakihama and Wu does not teach or suggest that the top of a metal contact pad has a substantially flat surface extending substantially throughout the entire opening. The Office Action relies upon Wu's cavities 215 in the bonding pad as meeting the limitations of the "first portion" of smaller thickness. Applicants respectfully disagree because Wu's cavities or grooves 15 are created to form an uneven pattern on the upper surface of the bonding pad to increase the effective contact area (Col. 3, lines 54-57). Therefore, Wu does not disclose or suggest that the top of a metal contact pad has a substantially flat surface extending substantially throughout the entire opening, as recited in amended claim 1. To the contrary, Wu teaches away from using a bonding pad with a substantially flat surface because forming an uneven surface increases the surface area (Col. 3, lines 54-57). For at least this reason, claim 1 patentably distinguishes over the combination of Sakihama and Wu. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-8 depend from claim 1 and patentably distinguish over Sakihama and Wu for at least the same reasons.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the telephone number indicated below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825 under Docket No. S1022.81126US00 from which the undersigned is authorized to draw.

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Respectfully submitted,

By Robert A. Jensen
Robert A. Jensen
Registration No.: 61,146
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000